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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

RAO, ANAND SHASHIKANT

ART UNIT

PAPER NUMBER

2621

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/085,137	Applicant(s) TANAKA ET AL.	
	Examiner Andy S. Rao	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 1-4, 7-8, 10-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5, 6, 9 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

1. Applicant's arguments filed with respect to claims 5-6, 9 and 12 on 4/2/09 have been fully considered but they are not persuasive.
2. Claims 5-6 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Honma et al., (hereinafter referred to as "Honma") in view of Chu, as was set forth in Office Action of 4/2/09.
3. Claim 12 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Honma et al., (hereinafter referred to as "Honma") in view of Chu et al., (hereinafter referred to as "Chu") and further in view of Kobayashi, as was set forth in the Office Action of 4/2/09.
4. The Applicant presents three substantive arguments contending the Examiner's rejections of claims 5-6 and 9 under 35 U.S.C. 103(a) as being unpatentable over Honma et al., (hereinafter referred to as "Honma") in view of Chu, and of claim 12 under 35 U.S.C. 103(a) as being unpatentable over Honma et al., (hereinafter referred to as "Honma") in view of Chu et al., (hereinafter referred to as "Chu") and further in view of Kobayashi, as was set forth in the Office Action of 4/2/09. However, after a careful consideration of the arguments presented, and further scrutiny of the applied references, the Examiner must respectfully disagree and maintain the grounds of rejection as the currently pending claims.

After summarizing the how the Applicants have addressed the rejection of claim 9 under 35 U.S.C. 101 (Amendment of 4/2/09: page 11, lines 3-7), the Applicants argue that the combination of Honma and Chu (Amendment of 4/2/09: page 11, lines 13-18) fails to address "...an EOB detector for outputting the position of the non-zero quantized frequency component

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in the predetermined scanning order as a control signal to the quantizer and the encoder...”

(Amendment of 4/2/09: page 11, 8-12) because one of ordinary skill in the art would not be motivated to make such a combination since Chu externally generates the EOB signal, while Honma discloses the internal generation of the EOB signal (Amendment of 4/2/09: page 11, line 20; page 12, lines 1-3). The Examiner respectfully disagrees. It is noted that distinction of making something separate (i.e. external) from something that was integral (i.e. internal) has long been held to be an obvious feature well within the purview of one of ordinary skill in the art, and a modification that the courts that have long since established as unpatentable, Nerwin v. Erlichhman, 168 USPQ 177, 179, (PTO Bd. of Int. 1969). In this case, even though Chu's EOB signal is externally generated, one of ordinary skill in the art would not be dissuaded from the Examiner's combination as discussed in the rejection. Furthermore, the Applicant's argue that the combination of Honma with Chu would render the Honma EOB signal generation superfluous and redundant, and therefore change the operation of the primary reference (Amendment of 4/2/09: page 12, lines 3-9). The Examiner flatly disagrees. In Honma, the EOB signal is generated to control coding circuits which are quantizers for efficient bit amount compression (Honma: column 18, lines 40-60). While with the incorporation of Chu, the EOB signal would control the VLCs in order to reduce the processing time of frequency coefficients. Since the EOB signals are being used for two different purposes, they cannot be considered superfluous or redundant. There are separate reasons for having the generated EOB signals sent to both the quantizers and VLCs, and therefore, the Examiner maintains that the combination remains proper.

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Secondly, the Applicants assert that the rejection of record is improper because "...there is no disclosure or teaching in any of these references, and no sound basis stated in this record, that would have suggested the desirability of combining any portions thereof effectively to anticipate or render obvious applicants' claimed invention..." (Amendment of 4/2/09: page 12, lines 11-17). The Examiner staunchly disagrees on multiple counts. First, the Applicants' insistence of the motivation coming from the hermetically sealed world of the references as a basis of establishing the propriety of the rejection is in error. The Examiner notes that the Courts concur with the Examiner's position: allowing for one of ordinary skill in the art to start with the references as a template but incorporate the depth of knowledge of the practitioner of art in establishing sufficient TSM (teaching, suggestion, motivation) criteria, KSR International Co. v. Teleflex, Inc., 550 U.S.-, 82 USPQ2d 1385 (2007). Additionally, the Examiner notes that a motivation coming from the Chu reference was used in the pending rejection (Office Action of 11/12/08: page 3, lines 13-16: reduction of processing time in coding the coefficients), and it is unclear to this Examiner how this provided motivation can be baldly asserted by the Applicants as not being a "sound" reason nor one of record without out any supporting arguments to substantiate such an untenable position. Additionally, the Examiner notes that as discussed above, there is sufficient case law that further augments the Examiner's rationale residing at the foundation of this rejection. Accordingly, the Examiner maintains that the proper motivation has been provided as the basis of this rejection.

Lastly, the Applicant's argue that tertiary Kobayashi reference fails to address the "...said EOB detector for outputting the position of the non-zero quantized frequency component in the predetermined scanning order as a control signal to the quantizer and the encoder..."

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limitation (Amendment of 4/2/09: page 12, lines 18-20; page 13, lines 1-2) as in the claim. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In particular, the Examiner notes that Kobayashi doesn't have to address the "...said EOB detector for outputting the position of the non-zero quantized frequency component in the predetermined scanning order as a control signal to the quantizer and the encoder..." limitation on its own, but addresses the feature by its combination with the Honma-Chu combination which does address the limitation as discussed above.

A detailed rejection of claim 9 follows.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Honma et al., (hereinafter referred to as "Honma") in view of Chu.

Honma discloses an encoding method (Honma: figure 16) comprising: frequency-converting data of a processing target block in a frequency converter into frequency components (Honma: column 21, lines 20-25); detecting an end of block of the frequency components in an

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EOB detector by comparing the frequency component with a quantization value as a divisor for dividing the frequency components in a quantization process (Honma: column 21, lines 35-45), and detecting the end of an encoded block (Honma: column 21, lines 46-60); quantizing in a quantizer the frequency components (Honma: column 18, lines 40-60), and pausing the quantizing thereafter (Honma: column 24, lines 60-67; column 25, lines 60-67); variable length coding the quantized frequency components (Honma: column 24, lines 5-19) in an encoder, adding an end of block code that indicates an end of effective components (Honma: column 24, lines 20-30), and pausing the variable length coding thereafter (Honma: column 24, lines 60-67; column 25, lines 1-20), as in claim 9. However, Honma fails to explicitly disclose that the EOB detector outputs the position of the non-zero frequency component in a predetermined scanning order as a control signal as in the claim. Chu discloses a video compression method (Chu: column 17, lines 60-67; column 18, lines 1-18) utilizing a vector adaptive transform that generates the position of the last non-zero frequency component in a predetermined scanning order (Chu: column 13, lines 35-50) and subsequent insertion of an EOB signal (Chu: column 14, lines 45-65) as a control signal for reducing the processing time in processing frequency coefficients (Chu: column 13, lines 50-60). Accordingly, given this teaching it would have obvious for one of ordinary skill in the art at the time of the invention to incorporate the Chu teaching of generating the position of the last non-zero frequency component in a predetermined scanning order and subsequent insertion of an EOB signal into the Honma method in order to reduce the processing time of the coding execution in the Honma apparatus. The Honma method, now incorporating the Chu disclosure of generating a signal indicating the position of the last

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non-zero frequency component in a predetermined scanning order and subsequent insertion of an EOB signal, has all of features of claim 9.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andy S. Rao
Primary Examiner
Art Unit 2621

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Primary Examiner, Art Unit 2621
July 5, 2009